

**THE STATE OF NEW HAMPSHIRE BEFORE
THE
PUBLIC UTILITIES COMMISSION**

**PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE d/b/a
EVERSOURCE ENERGY**

Docket No. DE 19-149

**SUPPLEMENTAL PETITION OF PUBLIC SERVICE COMPANY OF NEW
HAMPSHIRE D/B/A EVERSOURCE ENERGY
FOR LICENSE TO CONSTRUCT AND MAINTAIN ELECTRIC LINES
OVER AND ACROSS THE NORTH BRANCH RIVER AND STEELS POND
AND LAND OWNED BY THE STATE OF NEW HAMPSHIRE IN THE TOWNS OF
HILLSBOROUGH AND ANTRIM, NEW HAMPSHIRE**

Pursuant to RSA 371:17, Public Service Company of New Hampshire d/b/a Eversource Energy ("Eversource" or "the Company"), a public utility engaged in the transmission, distribution and sale of electricity in the State of New Hampshire, hereby petitions the Public Utilities Commission ("Commission") for a license to construct and maintain electric lines over and across certain waters and land owned by the State of New Hampshire ("State") in the Towns of Hillsborough and Antrim, New Hampshire. In support of this supplemental petition Eversource states as follows:

1. In order to meet the reasonable requirements of service to the public, Eversource has previously constructed and currently operates and maintains an overhead 115 kV electrical transmission line, designated as the Eversource X104 Line, over and across the North Branch River in the Town of Hillsborough, and Steels Pond in the Town of Antrim, New Hampshire. The existing crossing over and across Steels Pond in Antrim was previously licensed by the Commission under Order No. 18,782, dated August 4, 1987. The existing crossings over and across the North Branch River in Antrim and Hillsborough were not previously licensed. The State owned land parcel in Antrim, designated as Tax Map 214, Lot 34, was not previously licensed, as the land was in private ownership when the X104 Line was originally constructed, and therefore no Commission license was required. The locations of these crossings which are the subject of this supplemental petition are shown on the USGS locational drawing attached hereto as Exhibit #1.

2. Eversource is commencing a project to modify or rebuild a number of the structures on its existing X104 Transmission Line, which will impact the crossings which are the subject of this supplemental petition. Certain of the X104 Line wood transmission structures are approximately 65 years old and have been subject to environmental damage and require replacement or modification for the Line to continue to function safely and reliably. This structure replacement and repair project is part of a reliability project for the X104 Line to continue to meet current as well as future projected electricity demands. No conductor, shield wire or neutral wire will be replaced as part of this project; instead, existing conductors and wires will be transferred to the new, replaced structures (Structure 3, 5, 38, 39 and 44), which will be a steel replacement of the wood structures.
3. Between 2016-2017, Eversource completed two (2) structure replacements (Str. 4, 45) along the existing X104 transmission line, impacting the North Branch River and Steels Pond crossings that are the subject of this supplemental petition. A petition was not submitted prior to this work being completed, and as such, will be licensed under this supplemental petition. No conductor, shield wire or neutral wire was replaced as part of the project; instead, existing conductors and wires were transferred to the new structures, which were a steel structure replacement of the wood structures.
4. The attached Exhibit #1 shows the general location of the X104 Line crossings of the North Branch River and Steels Pond to be rebuilt as part of Eversource's project. The design and proposed construction of the replacement crossings for the X104 Line over the North Branch River and Steels Pond will be in accordance with the National Electrical Safety Code (NESC), as shown on the Eversource Plan and Profile Drawing for the water crossing, attached as Exhibits #2, #3, and #4.
5. Wire and structure specifications for the crossing spans are as depicted on Exhibits 2, 3 and 4.
6. The location of the structures creates the following crossing spans:
 - a. North Branch River: Hillsborough (Exhibit 2)
 - a Structures: 3 to 4
 - b Structure Span (ft): 537
 - c Public Water Span (ft): 84.2

- b. North Branch River: Hillsborough (Exhibit 2)
 - a Structures: 4 to 5
 - b Structure Span (ft): 555
 - c Public Water Span (ft): 150
 - d North Branch River: 555.1 feet (Structure 4 to 5)
 - c. North Branch River: Antrim (Exhibit 3)
 - a Structures: 38 to 39
 - b Structure Span (ft): 723
 - c Public Water Span (ft): 44.3
 - d. State Owned Land Crossing: Map 214, Lot 34, Antrim (Exhibit 3):
 - a Structures: 38 to 39
 - b Structure Span (ft): 723
 - c State Owned Land Span (ft): 39.2
 - e. Steels Pond: Antrim (Exhibit 4)
 - a Structures: 44 to 45
 - b Structure Span (ft): 638
 - c Public Water Span (ft): 458.3
7. All conductors and wires have been drawn in Exhibit #2, Exhibit #3 and Exhibit #4 to show the maximum sag conditions in reference to the water, and to the State land, respectively. Eversource adds 5% to the line voltage for purposes of calculating maximum sag at peak voltage, which, in the case of the X014, was calculated at 121kV.
8. Eversource will maintain and operate the clearances of the wire crossings over the North Branch River and Steels Pond at a height no less than what is required by the 2017 National Electrical Safety Code (NESC, Table 232-1). The water crossings require 18.6 feet for 115kV open supply conductors and 14.0 feet for neutral and static wires comparable to the ADSS fiber, over water areas not suitable for sail boating. The minimum heights over the North Branch River and Steels Pond are depicted on the attached Exhibit #2, Exhibit #3 and Exhibit #4 and exceed NESC requirements.
9. The public water crossing span of Steels Pond is based upon FEMA flood zone maps dated September 25, 2009 for that area (Zone AE, 852.1 feet). The public water crossing span of the North Branch River in Hillsborough is based upon FEMA flood zone maps dated September 25, 2009 for that area (Zone AE 620.0 feet). The North Branch River crossing in Antrim is Zone A but base flood elevations have not been determined by FEMA for that location and the elevation indicated on Exhibit 3 is based on a comparison of surrounding

elevations with the FEMA delineated 100-year flood zone boundary. These elevations are based on the North American Vertical Datum of 1988 (NAVD 88). For the purposes of calculating clearance, the 100-year flood elevations were used, as it was readily available. This is higher than the 10-year flood elevation required by NESC and provides a conservative clearance requirement.

10. A New Hampshire Department of Environmental Services (NHDES) Statutory Permit by Notification authorization was obtained for construction activities near the North Branch River in Hillsborough (See NHDES Files #2019-00300 and #2020-00560) and a NHDES Standard Dredge and Fill Permit was obtained for construction activities near the North Branch River and Steels Pond in Antrim (See NHDES File # 2019-03242) .
11. The U.S. Army Corps of Engineers (ACOE) does not regulate the subject portions of Steels Pond or North Branch River as navigable waters. As a result, a crossing permit from the ACOE is not required.
12. It is not anticipated that abutters on either side of the Steels Pond crossing or North Branch River crossings will be affected by this supplemental petition, as the X104 Line is an existing line, and the crossing structures are being replaced and rebuilt within Eversource's existing utility easements.
13. Eversource submits that the license petitioned for herein may be exercised without substantially affecting the rights of the public in the public waters of the North Branch River or Steels Pond. Minimum safe clearances above the water surfaces will be maintained at all times. The use and enjoyment by the public of the North Branch River will not be diminished in any material respect as a result of the replacement of the overhead line crossing.

WHEREFORE, Eversource respectfully requests that the Commission:

1. Find that the license petitioned for herein may be exercised without substantially affecting the public rights in the public waters which are the subject of this supplemental petition;

2. Grant Eversource a license to construct and maintain electric lines over and across the State's land parcel as identified and described in this supplemental petition; and
3. Issue an Order *Nisi* and orders for its publication.

Dated this 7th day of April 2020.

Respectfully submitted,

**PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
D/B/A EVERSOURCE ENERGY**

By its Attorney



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